

Special Announcement



National Aeronautics and
Space Administration

Goddard Space Flight Center
Wallops Flight Facility
Wallops Island, Virginia 23337

No.

Date: October 15, 2021

Subject: IMPORTANT INFORMATION ABOUT LEAD IN YOUR DRINKING WATER

Consumer Notice of Second 2021 Semiannual Tap Water Results (September 2021)

Wallops Flight Facility, Main Base

NASA Wallops Flight Facility (WFF) operates two drinking water systems that provide drinking water throughout the Main Base and Wallops Mainland/Island locations. WFF ensures that the drinking water meets state and federal standards. Drinking water is routinely monitored for various constituents, such as bacteria and metals, in accordance with Virginia Department of Health (VDH) regulations. WFF recently completed the semi-annual monitoring for lead and copper in drinking water and found elevated levels of lead in drinking water in some buildings on the Main Base. All drinking water samples were collected from unfiltered water taps. The results of this testing are as follows:

Second 2021 Semiannual Main Base Tap Water Lead and Copper Results			
Sample Location	Sample Date	Copper (mg/L)	Lead (mg/L)
A-1	9/4/2021	0.108	0.00214
A-41	9/4/2021	0.189	0.00645
CBFS ED CENTER	9/2/2021	0.198	<0.002
D-1	9/4/2021	0.136	0.0109
E-2	9/2/2021	0.164	<0.002
E-104	9/4/2021	0.03	<0.002
E-107	9/4/2021	0.0335	<0.002
F-1	9/4/2021	7.2	0.011
F-3	9/2/2021	0.638	0.00836
F-10	9/4/2021	0.489	0.0436
F-16	9/4/2021	0.0744	<0.002
F-20	9/4/2021	0.0685	<0.002
F-160	9/2/2021	0.0792	0.00986
J-20	9/4/2021	0.0657	0.00496
M-15	9/4/2021	0.051	<0.002
N-159	9/2/2021	0.134	0.00512
N-162	9/2/2021	0.0244	0.00743
NOAA	9/4/2021	0.0272	<0.002
Q-29	9/2/2021	0.155	0.031
R-20	9/2/2021	0.137	0.00581

The < symbol indicates concentrations below the detection capability of the laboratory analytical method. Results in **BOLD** represent the 90th percentile results from the monitoring period. **Shaded** results are above the action levels (0.015 mg/L for lead and 1.3 mg/L for copper).

What Do the Sampling Results Mean?

Sampling results are compared to action levels established under the Safe Drinking Water Act by the U.S. Environmental Protection Agency (EPA). The action level is the concentration of a contaminant which, if exceeded, triggers treatment, additional sampling, or other requirements. EPA set the action levels for lead and copper in drinking water at 0.015 milligrams per liter (mg/L) and 1.3 mg/L, respectively.

EPA and VDH require tap water concentrations to be below the action levels at the 90th percentile, such that 90% of all monitored sites do not exceed the action levels. Since twenty samples were collected, the 90th percentile concentration is the third highest concentration (**BOLD** in the table above).

The 90th percentile copper concentration was **0.489** mg/L, which is below the action level of 1.3 mg/L. The 90th percentile lead concentration was **0.011** mg/L, which is below the action level of 0.015 mg/L.

The EPA also set Maximum Contaminant Level Goals (MCLG) for drinking water, which are the maximum concentrations for which there are no known or expected health risks. The MCLGs allow for a margin of safety. Because lead may pose serious health risks, the EPA set the lead MCLG at zero. The MCLG for copper is 1.3 milligram per liter (same as the action level).

What Do We Do at NASA WFF to Ensure Drinking Water Quality?

In addition to routine monitoring, WFF has installed and maintained activated carbon filters on water fountains and kitchen sinks. A filter maintenance program is used to ensure the filters are effective. Additionally, WFF Facilities Management Branch (FMB) applies corrosion control measures, which include the addition of Zinc-Orthophosphate to drinking water to further reduce pre-filter lead and copper levels. Water mains and interior building taps are periodically flushed to further reduce any lead and copper levels. WFF's drinking water has been tested after filtration at the tap and demonstrated to be below federal and state drinking water action levels for lead and copper.

You can call the "HELP" desk (x4357) to request the activated carbon filters in your area be examined and replaced, as necessary.

What Are the Health Effects of Lead?

According to the EPA, exposure to lead can cause serious health problems if too much enters your body from drinking water or other sources, especially for pregnant women and young children. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development. Recent studies suggest that adults who drink water containing lead have increased risks of heart disease, high blood pressure, kidney, and nervous system problems.

What Are the Sources of Lead?

Lead is a common metal that has been found in many consumer products and is now known to be harmful to human health, if ingested or inhaled. Although the primary sources of lead exposure are lead-based paint and lead-contaminated dust or soil, the EPA estimates that 20 percent or more of a person's potential exposure to lead may come from drinking water. Infants who consume mostly formula mixed with lead-containing water can receive 40 to 60 percent of their exposure to lead from drinking water. Lead is rarely found in natural sources of water such as rivers, lakes, wells, or springs.

What Can I Do to Reduce Exposure to Lead in Drinking Water?

Lead may work its way into drinking water after the water enters the distribution system and is on its way to consumer's taps. Lead enters drinking water mainly from corrosion of lead-containing plumbing materials. These materials include

brass faucets, lead solder on copper pipes, lead pipes, or lead service lines connecting the water main to the inside plumbing. Lead pipes are no longer installed for service lines or in household plumbing, and lead solder was banned in Virginia in 1985.

There are several steps to take to reduce your exposure to lead in drinking water. These include:

- 1. Run your cold water tap to flush out lead.** If water hasn't been used for several hours, allow the water to run at the tap for 30 seconds to 2 minutes before using it for drinking or cooking. The water you run from drinking water taps does not have to be wasted. You can use this water for cleaning purposes or for watering plants. You may want to keep a container of drinking water in your refrigerator after flushing lines, so you don't have to run water every time you need it.
- 2. Use cold water for cooking and preparing baby formula.** Do not cook with, or drink water from the hot water tap, as lead dissolves more easily into hot water. Lead may still be present in the manufacture of some water heaters. Do not use water from the hot water tap to make baby food or formula.
- 3. Do not boil water to remove lead.** Boiling water will not reduce lead levels in drinking water.
- 4. Look for alternative sources or treatments for water.** Consider purchasing bottled water or a water filter to remove metals. Read the package insert to be sure the filter is approved for reducing metals or contact the National Sanitation Foundation at 800-NSF-8010 or www.nsf.org for information on performance standards for water filters. If you choose to install a lead removal filter, be sure to maintain and replace the filter device in accordance with the manufacturer's instructions.
- 5. Get your child tested.** Contact your local health department or healthcare provider to find out how you can get your child tested for lead if there is a concern over exposure.
- 6. Identify any plumbing fixtures containing lead.** Brass faucets, fittings, and valves manufactured before January 4, 2014, may contribute lead to drinking water, including those advertised as "lead free." Under current law, "lead free" means no more than 0.2 percent lead in solder and flux, and 0.25 percent lead for pipe, pipe fittings, and components. Visit the National Sanitation Foundation Web site at www.nsf.org to learn more about lead-containing plumbing fixtures.

For More Information

Call NASA WFF's Environmental Office at 757-824-1987. For more information on reducing lead exposure in your home or building and the health effects of lead, visit EPA's website at www.epa.gov/lead and www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water#reducehome, call the National Lead Information Center at 800-424-LEAD, or contact your personal health care provider.

David A. Reth
Director of Management Operations

Signature

Date

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